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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

DELGADO, MICHAEL A

ART UNIT PAPER NUMBER

2144

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/521,282

Applicant(s)

BELISSENT ET AL.

Examiner

Michael S. A. Delgado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-18 and 20-26 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1,3,5-18 and 20-26 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 March 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/17/04, 9/13/04, 6/6/05

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 06/06/2005 have been fully considered but they are not persuasive. In response to the argument that the virtual domain attribute limitation is not taught by the prior art. Agraharam disclosed a method of using a person phone number as a means to deliver a message to that individual email (abstract). The mapping from "email.aft.net" domain (virtual domain) to "aftmail.com" domain (real domain) is consistent with the definition of a virtual domain (Col 3, lines 40-50). A person accessing "email.aft.net" domain is not aware that the domain that the individual is accessing is the "aftmail.com" domain and not the "email.aft.net". Herzog teaches about using attributes "active service list" in a domain name service operation (abstract). The Herzog is analogous with the computer network art and combining it with a virtual domain name service is valid.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5-18 and 20-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No.5, 987,508 by Agraharam et al in view of US Patent No.6, 425, 003 by Herzog et al.

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In claim 1 Agraharam teaches about a method for defining a virtual domain in an electronic messaging system, comprising (Fig 2):

defining a virtual domain node “recipient alias telephone number email address .. telephone#@domain_name” corresponding to a real domain name server “actual e-mail address” in a hierarchically organized directory wherein the hierarchically organized directory is a hierarchical structure that resembles a tree with one major branch at the top and many branches and sub-branches below (Col 3, lines 25-50), (Col 4, lines 1-15), (Col 4, lines 45-50); and (The directory structure of a domain is inherently one of hierarch which has a tree structure) (The email accounts of Agraharam has to have an associated administrator, postmaster and the status of the account has to be available for the email system to work).

But does not explicitly teach about associating a plurality of virtual domain attributes to the virtual domain node, the plurality of virtual domain attributes selected from a designated virtual domain administrator, a designated virtual domain postmaster, a state of the virtual domain and a set of allowed services for the virtual domain.

Herzog teaches about a method of domain administrating using an Active Service List (ASL) that utilized the domain attributes (information about the service) to determine the appropriate service (Col 1, line 65 –Col 2, line 15). In Agraharam invention the predicted growth of electronic commerce and the complexity of administration in domain service is disclosed (Col 1, lines 10-35). Herzog invention disclosed an improve way of accessing services within a domain by utilizing domain attributes. (Col 1, line 65 –Col 2, line 15). By utilizing the domain attributes, service information is better organized, as one is given a true picture of the

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state of the service that is being requested and the alternatives that are available. This makes it easier to implement the action of re-directing request to the optimal service destination.

It would have been obvious at the time of the invention for some of ordinary skill to use domain attributes in order to improve the way service is administrated to a client.

In claim 3, Agraharam combined with Herzog, teaches about a method as recited in claim 1, wherein the state of the virtual domain node is selected from the list comprising: active, inactive (or suspended), and deleted (Agraharam Col 4, lines 35-65) (Agraharam Col 6, lines 60-67). (Flags are used to show inactivity and availability). Delete is equivalent to an unregistered user as the action taken is the same in both cases.

In claim 5, Agraharam combined with Herzog, teaches about a method as recited in claim 1, wherein the tree based hierarchy is a standard based directory information tree (DIT) "LDAP" that includes a plurality of directory entries each of which is associated with a higher level (parent) directory entry (Agraharam Col 4, lines 1-15). (The directory structure of a domain is inherently one of a hierarchy, which has a tree structure therefore the structure of the LDAP inherently has to be a tree-like structure).

In claim 6, Agraharam combined with Herzog, teaches about a method as recited in claim 5, wherein the directory takes the form of a segmented name space "steveg@aftmail.com" (Agraharam Col 3, lines 25-50). (This is consistent with the form that is use in domain addressing)

In claim 7, Agraharam combined with Herzog, teaches about a method as recited in claim 6, wherein the segmented name space "steveg@aftmail.com" includes a segmented name

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associated with a user “steveg” that is segmented in such a way that the user is uniquely identified by a unique user name at a first hierarchical level and an associated domain name “aftmail.com” at a higher hierarchical level (Agraharam Col 3, lines 25-50). (This is consistent with the form that is use in domain addressing)

For claim 8, Agraharam combined with Herzog, teaches about a method as recited in claim 7, wherein during a user name search operation, the user name is initially resolved at the higher hierarchical level and subsequently at the first hierarchical level such that in a multi-domain environment the search operation is performed as if the user name was part of a flat name space (Agraharam Col 3, lines 50-65).

In claim 9, Agraharam combined with Herzog, teaches about a method as recited in claim 8 further comprising:

defining a routing table based upon the segmented name space “steveg@aftmail.com” , wherein the routing table is used by a transfer agent “translation server” to direct an appropriately addressed email message to a receiving user in the virtual domain (Agraharam Col 3, lines 50-67).

For claim 10, Agraharam combined with Herzog, teaches about a method as recited in claim 9, wherein the segmented name space is based upon the most direct path from the user name to the highest connected hierarchical level in the directory (Agraharam Col 5, lines 20-35). The most direct path includes phone number and the name of the person.

In claim 11, Agraharam combined with Herzog, teaches about a method as recited in claim 1, wherein the electronic messaging system is an email messaging system (Agraharam Col 3, lines 10-20).

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For claim 12, Agraharam combined with Herzog, teaches about a method as recited in claim 1, wherein the electronic messaging system is a voicemail messaging system (Agraharam Col 4, lines 12-25).

In claim 13, Agraharam combined with Herzog, teaches about a method as recited in claim 10, wherein the standard based directory is an LDAP based directory (Agraharam Col 4, lines 1-10).

For claim 14, Agraharam combined with Herzog, teaches about a computer-readable medium containing programming instructions for defining a virtual domain in an electronic messaging system, the computer-readable medium comprising computer program code devices configured to cause a computer to execute the operations of (Fig 2):

defining a virtual domain node "recipient alias telephone number email address .. telephone#@domain_name" corresponding to a real (non-virtual) "actual e-mail address" domain in a hierarchically organized directory wherein the hierarchically organized directory is a hierarchical structure that resembles a tree with one major branch at the top and many branches and sub-branches below (Agraharam Col 3, lines 25-50), (Agraharam Col 4, lines 1-15), (Agraharam Col 4, lines 45-50); (The directory structure of a domain is inherently one of hierarch which has a tree structure) (The email accounts of Agraharam has to have an associated administrator, postmaster and the status of the account has to be available for the email system to work) and

associating a plurality of virtual domain attributes to the virtual domain node, the plurality of virtual domain attributes selected from a designated virtual domain administrator, a

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designated virtual domain postmaster, a state of the virtual domain and a set of allowed services for the virtual domain (Covered in claim 1).

In claim 15, Agraharam combined with Herzog, teaches about a computer-readable medium containing programming instructions for defining a virtual domain in an electronic messaging system as recited in claim 14 (Agraharam Col 5, lines 20-35), wherein the state of the virtual domain node is selected from the list comprising: active, inactive (or suspended), and deleted (Flags are used to show inactivity and availability). Delete is equivalent to an unregistered user as the action taken is the same in both cases.

For claim 16, Agraharam combined with Herzog, teaches about a computer-readable medium containing programming instructions for defining a virtual domain in an electronic messaging system as recited in claim 15, the computer-readable medium further comprising computer program code devices configured to cause a computer to execute the operations of (Agraharam Col 1, lines 40-60):

defining a routing table based upon the segmented name space "steveg@aftmail.com", wherein the routing table is used by a transfer agent "translation server" to direct an appropriately addressed email message to a receiving user in the virtual domain (Agraharam Col 3, lines 50-67).

In claim 17, Agraharam combined with Herzog, teaches about a computer-readable medium containing programming instructions for defining a virtual domain in an electronic messaging system as recited in claim 16, the computer-readable medium further comprising computer program code devices configured to cause a computer to execute the operations of (Agraharam Col 1, lines 40-60):

initially resolving a user name during a user name search operation at the higher hierarchical level and subsequently at the first hierarchical level such that in a multi-domain environment the search operation is performed as if the user name was part of a flat name space (Agraharam Col 3, lines 50-65).

For claim 18, Agraharam combined with Herzog, teaches about an electronic messaging system having a main host computer for transferring an incoming message between a sending subscriber and a receiving subscriber having an associated unique user name, comprising (Agraharam Col 3, lines 50-67):

a messaging server "translation server" coupled to the host computer arranged to receive the incoming message from the sending subscriber and arranged to forward the message to the receiving subscriber based upon the receiving subscriber's user name (Agraharam Col 3, lines 50-67);

a hierarchically organized directory coupled to the messaging server arranged to define a virtual domain node "recipient alias telephone number email address .. telephone#@domain_name" corresponding to a real (non-virtual) "actual e-mail address" domain having associated with it a plurality of virtual domain attributes (see claim 2 for detail) to the virtual domain node wherein the hierarchically organized directory is a hierarchical structure that resembles a tree with one major branch at the top and many branches and sub-branches below (Agraharam Col 3, lines 25-50), (Agraharam Col 4, lines 1-15), (Agraharam Col 4, lines 45-50) (The directory structure of a domain is inherently one of hierarch which has a tree structure), the plurality of virtual domain attributes selected from a designated virtual domain administrator, a designated virtual domain postmaster, a state of the virtual domain and a set of

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allowed services for the virtual domain (Covered in claim 1). (The email accounts of Agraharam have to have an associated administrator, postmaster and the status of the account has to be available for the email system to work).

For claim 20, Agraharam combined with Herzog, teaches about an electronic messaging system as recited in claim 18, wherein the state of the virtual domain node is selected from the list comprising: active, inactive (or suspended), and deleted (Agraharam Col 4, lines 35-65), (Agraharam Col 6 lines 60-67) (Flags are used to show inactivity and availability). Delete is equivalent to an unregistered user as the action taken is the same in both cases.

In claim 21, Agraharam combined with Herzog, teaches about an electronic messaging system as recited in claim 20, wherein the hierarchically organized directory is an LDAP based directory information tree (DIT) that includes a plurality of directory entries each of which is associated with a higher level (parent) directory entry and wherein the directory takes the form of a segmented name space (Agraharam Col 4, lines 1-15). (The directory structure of a domain is inherently one of a hierarchy, which has a tree structure therefore the structure of the LDAP inherently has to be a tree-like structure).

For claim 22, Agraharam combined with Herzog, teaches about an electronic messaging system as recited in claim 21, wherein the user name "steveg@aftmail.com" is segmented in such a way that the user is uniquely identified by a unique userid "steveg" at a first hierarchical level and an associated domain name "aftmail.com" at a higher hierarchical level (Agraharam Col 3, lines 25-50).

In claim 23, Agraharam combined with Herzog, teaches about an electronic messaging system as recited in claim 22, wherein in order for the messaging server to forward the email

message to the receiving subscriber, the messaging server executes a user name search operation (Agraharam Col 3, lines 50-65).

In claim 24, Agraharam teaches about an electronic messaging system as recited in claim 23, wherein the user name search operation comprises:

initially resolving the user name at a highest hierarchical level and subsequently at a lowest hierarchical level in such a way that when the name search operation is executed in a multi-domain environment, the search operation is performed as if the user name was part of a flat name space (Agraharam Col 3, lines 50-65).

In claim 25, Agraharam combined with Herzog, teaches about an electronic messaging system as recited in claim 24, wherein the messaging server further includes:

a routing table defined by the directory based upon the resolved receiving subscriber's user name that defines a path by which the email message is passed from the sending subscriber to the receiving subscriber (Agraharam Col 3, line 50-Col 4, line 15); and

a transfer agent "translation server" arranged to direct the email message from the sending subscriber to the receiving subscriber as defined by the routing table (Agraharam Col 3, lines 50-67).

In claim 26 Agraharam combined with Herzog, teaches about a method for defining a virtual domain in an electronic messaging system, comprising (Fig 2):

defining a virtual domain node "recipient alias telephone number email address .. telephone#@domain_name" corresponding to a real domain name server "actual e-mail address" in a hierarchically organized directory wherein the hierarchically organized directory is a hierarchical structure that resembles a tree with one major branch at the top and many branches

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and sub-branches below (Agraharam Col 3, lines 25-50), (Agraharam Col 4, lines 1-15), (Agraharam Col 4, lines 45-50); and (The directory structure of a domain is inherently one of hierarch which has a tree structure).

associating a plurality of virtual domain attributes to the virtual domain node such that a virtual domain in an electronic messaging system is defined, the plurality of virtual domain attributes selected from a designated virtual domain administrator, a designated virtual domain postmaster, a state of the virtual domain and a set of allowed services for the virtual domain (Covered in claim 1). (The email accounts of Agraharam have to have an associated administrator, postmaster and the status of the account has to be available for the email system to work).

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 6,085,238 by Yuasa et al teaches about a virtual LAN system.

US 6,304,892 by Bhoj et al teaches about a management system for selective data exchanges across federated environments.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael S. A. Delgado whose telephone number is (571) 272-3926. The examiner can normally be reached on 7.30 AM - 5.30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923

. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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